



# ICAO ENGINE EXHAUST EMISSIONS DATA SHEET

## SUBSONIC ENGINES

ENGINE IDENTIFICATION: JT9D-7R4G2      BYPASS RATIO: 4.8  
 UNIQUE ID NUMBER: 1PW029      PRESSURE RATIO ( $\pi_{00}$ ): 26.3  
 COMBUSTOR:  
 ENGINE TYPE: TF      RATED THRUST ( $F_{00}$ ) (kN): 243.5

### REGULATORY DATA

CHARACTERISTIC VALUE:	HC	CO	NO <sub>x</sub>	SMOKE NUMBER
D <sub>p</sub> /F <sub>00</sub> (g/kN) or SN	2.9	20.7	63.2	7.5
AS % OF ORIGINAL LIMIT	14.9	17.6	68.3	40.3
AS % OF CAEP/2 LIMIT (NO <sub>x</sub> )			85.4	
AS % OF CAEP/4 LIMIT (NO <sub>x</sub> )			103.5	
AS % OF CAEP/6 LIMIT (NO <sub>x</sub> )			117.7	
AS % OF CAEP/8 LIMIT (NO <sub>x</sub> )			140.7	

### DATA STATUS

- PRE-REGULATION  
 x CERTIFICATION  
 - REVISED (SEE REMARKS)

### TEST ENGINE STATUS

- NEWLY MANUFACTURED ENGINES  
 x DEDICATED ENGINES TO PRODUCTION STANDARD  
 - OTHER (SEE REMARKS)

### EMISSIONS STATUS

x DATA CORRECTED TO REFERENCE  
 (ANNEX 16 VOLUME II)

### CURRENT ENGINE STATUS

(IN PRODUCTION, IN SERVICE UNLESS OTHERWISE NOTED)  
 x OUT OF PRODUCTION (DATE: - )  
 - OUT OF SERVICE (DATE: - )

### MEASURED DATA

MODE	POWER SETTING (%F <sub>00</sub> )	TIME (minutes)	FUEL FLOW (kg/s)	EMISSIONS INDICES (g/kg)			SMOKE NUMBER
				HC	CO	NO <sub>x</sub>	
TAKE-OFF	100	0.7	2.429	0.15	0.74	41.30	6.8
CLIMB OUT	85	2.2	1.880	0.14	0.63	29.50	
APPROACH	30	4.0	0.659	0.18	1.40	8.80	
IDLE	7	26.0	0.224	1.55	11.82	3.80	
LTO TOTAL FUEL (kg) or EMISSIONS (g)			858	620	4582	14253	-
NUMBER OF ENGINES				5	5	5	3
NUMBER OF TESTS				6	6	6	3
AVERAGE D <sub>p</sub> /F <sub>00</sub> (g/kN) or AVERAGE SN (MAX)				2.6	19.5	60.5	6.8
SIGMA (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							
RANGE (D <sub>p</sub> /F <sub>00</sub> in g/kN, or SN)							

### ACCESSORY LOADS

POWER EXTRACTION 0 (kW) AT - POWER SETTINGS  
 STAGE BLEED 0 (% CORE FLOW) AT - POWER SETTINGS

### ATMOSPHERIC CONDITIONS

BAROMETER (kPa)	
TEMPERATURE (K)	271-299
ABS HUMIDITY (kg/kg)	

### FUEL

SPEC	Jet A
H/C	
AROM (%)	

MANUFACTURER: Pratt & Whitney  
 TEST ORGANIZATION: P&WA  
 TEST LOCATION: East Hartford, CT  
 TEST DATES: 26/10/1981-10/09/1983

### REMARKS

Compliance with Fuel Venting requirements: - ('x' if complies, 'PR' if pre-regulation, '-' if information is not available)